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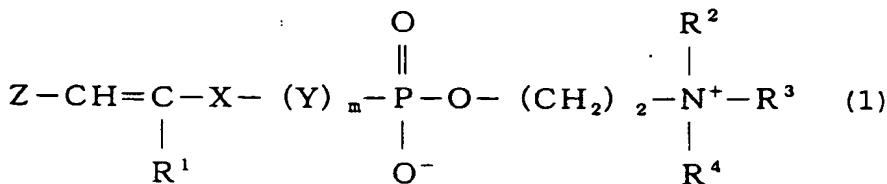
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(54) **PROCESS FOR PRODUCING AN AQUEOUS SOLUTION OF PHOSPHORYLCHOLINE GROUP BEARING POLYMER AND AQUEOUS SOLUTION OF PHOSPHORYLCHOLINE GROUP BEARING POLYMER**

(57) A method for producing an aqueous solution of a polymer having a phosphorylcholine group in which a polymerizable composition containing a polymerizable monomer having the phosphorylcholine group represented by the formula (1) is polymerized in the presence of a non-metal polymerization initiator soluble in a water-containing medium, to obtain a crude polymer aqueous solution, and the crude polymer aqueous solution is purified with a separation membrane, and an aqueous solution of the polymer having the phosphorylcholine group obtained by the method and having not more than 2000ppm of impurities.



(X: a divalent organic residue, Y: an alkyleneoxy group having C1 to 6, Z: H, R<sup>5</sup>-O-CO-(R<sup>5</sup>: an alkyl group of C1 to 10), R<sup>1</sup>:H, CH<sub>3</sub>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>: H, a hydrocarbon group or a hydroxy substituted hydrocarbon group of C1 to 6, m: 0 or 1)